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SUB-RECORDER
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REFERENCES

COSTS STATEMENTS

CERTIFICATE

MAPS:

1. Location
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4. Aspen 9 Claim & Collar of A9-1-88

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

18,227

18227



Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

ISSUED BY: [unclear]
DATE: [unclear]

TYPE OF REPORT/SURVEY(S)
CYCLONE ROTARY AIR MUD DRILLING

TOTAL COST
\$16,150.80

AUTHOR(S) Alfred R. Allen SIGNATURE(S) *Alfred R. Allen* P.Eng.

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED October 18, 1988

PROPERTY NAME(S) Aspen Group 1-A

COMMODITIES PRESENT Cu, Au, Ag, P6

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION Fort Steele HTS 82 G/6 W

LATITUDE 49°-18' 29" LONGITUDE 115°-23'

NAMES and NUMBERS of mineral tenures in good standing (when work was done) that form the property (12 claims): PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease #11 (12 claims involved)

Aspen 9, 10, 10A

OWNER(S)

(1) R.H. Stanfield (2)

MAILING ADDRESS

350 4723 1st Street, S.W.
Calgary, Alberta T2G 0A1

OPERATOR(S) (that is, Company paying for the work)

(1) R.H. Stanfield (2)

MAILING ADDRESS

same

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

The S.E. area of Aspen 1-A Group is underlain by Precambrian Aldridge formation. The Bull River fault strikes northwesterly across the Aspen 9 Claim with mississippian and Pennsylvanian formations in the Rocky Mountain trench on the S.W., and Aldridge strata on the N.E. The Bull River mine is in Aldridge, 600 m. north of the Aspen 9 Claim.

REFERENCES TO PREVIOUS WORK Leech, G.B., G.S.C. Paper 58-10, C.I.M.M. Southern Rocky Mountain Trench, p. 154-174, Allen A.R. The Bull River Copper, Silver, Gold Mine, June 1976, Allen A.R. Reports, Stanfield Holdings 1968-1988, Chiang M.C., Placid Oil Co. Reports, 1973-1976.

A. INTRODUCTION

A vertical hole was drilled near the southeast corner of the Aspen 9 claim of the Aspen 1-A Group, using Cyclone Rotary Air-Mud equipment.

The purpose of drilling was to supplement data acquired previously from four holes drilled near the northeast corner of the claim, where Precambrian Aldridge argillite was located, easterly from the important Bull River fault.

The hole was drilled vertically to a depth of 91.4 metres through overburden, and did not penetrate bedrock, hence the contact between the Palaeozoic and Precambrian formations is not established, although, by projection, the fault contact is indicated to be close to the location of this hole.

B. PROPERTY

The Aspen 1-A Group included the following located adjoining mineral claims:

<u>Name</u>	<u>Record Number</u>	<u>Size</u>	<u>Expiration Date</u>
Aspen 9	787 (10)	17 units	1989
Aspen 10	788 (10)	18 units	1989
Aspen 10A	2576 (2)	2 units	1990

Note: M69 overlies part of Aspen #9 and Aspen #10.

C. LOCATION

The Aspen 1-A Group is located in southeastern British Columbia, at North Latitude 49°-29' and West Longitude 115°-23' in the Fort Steele Mining Division.

The collar of drill hole A 9-1-88 is 750 metres west of the southeast corner of the Aspen 9 claim, at elevation 884 metres above sea level. The town of Bull River is 2 kilometres southwest of the Aspen 1-A Group. Access is via



PROPERTY
LOCATION

R.H. STANFIELD HOLDINGS

LOCATION MAP

SCALE: 1" = 136 MIs.

Drawn by Date 10/12/89

Checked by Org no. R.R.D.

Alfred R. Allen
P. ENG

Highway 3 from Cranbrook, and secondary roads over the property. The camp is near Galloway.

D. PHYSIOGRAPHY

The Aspen 1-A Group is located northeast of the Kootenay River and Rocky Mountain Trench.

The Bull River flows westerly over the north half of the Aspen 9 claim and southwesterly across the Aspen 10 claim. Burnbridge Creek flows southerly into the Bull River near the northwest area of the Aspen 9 claim. The Bull River mine is located on a flat area north of the Bull River.

Elevations range from 823 metres to 1,067 metres above sea level on the Aspen 1-A Group.

E. PREVIOUS WORK

Leech, G.B. Paper 58-10 G.S.C., 1958.

Leech, G.B. Paper 66-14 G.S.C., p.p. 307-329, 1966.

Bulletin Canadian Petroleum Geol. C10, p.p. 396-407, 1962.

I.G.C. Field Excursion A-15 and C-15, 1972.

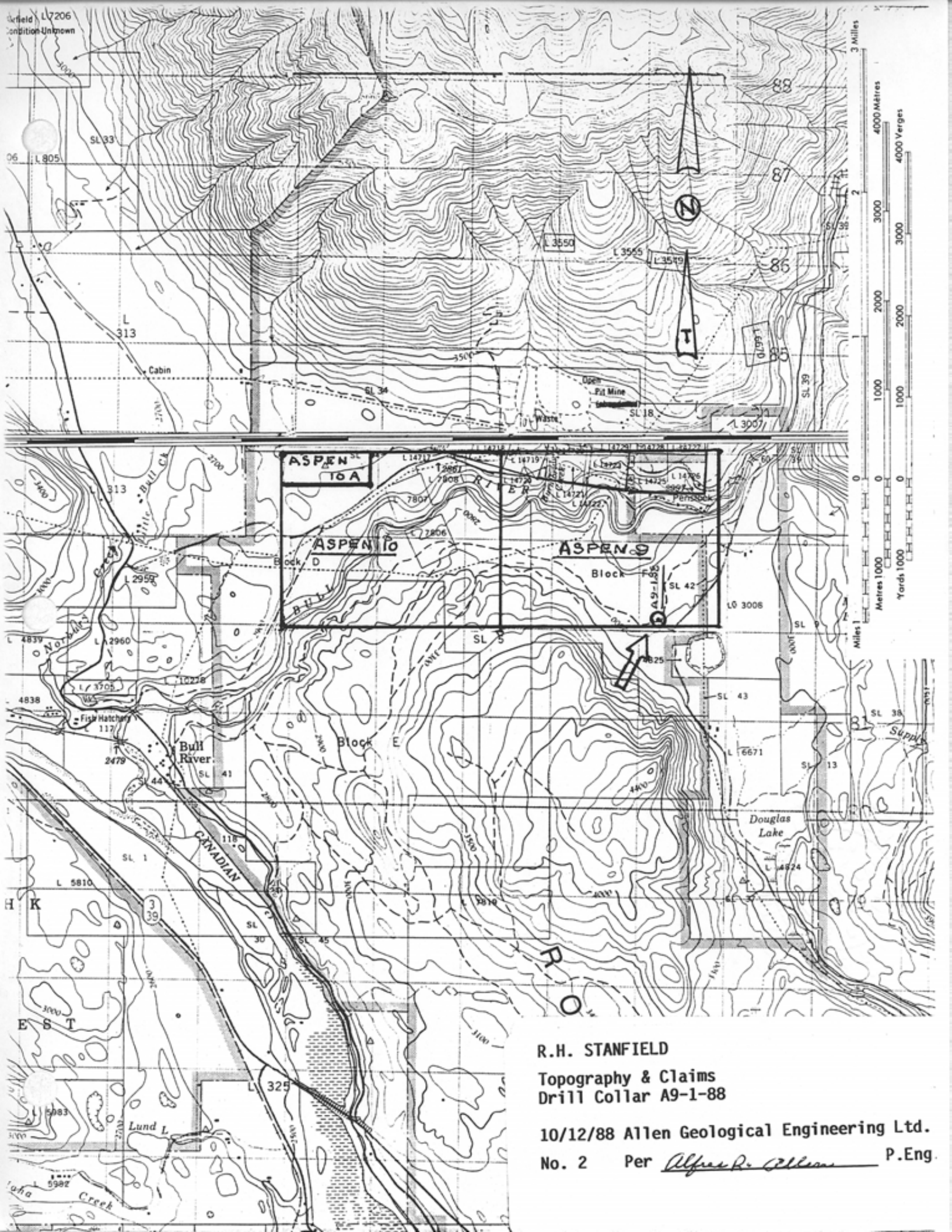
Allen, A.R. Drilling Report, Aspen 9, 10 & 10A Claims, 1987.

Allen, A.R. Core and Rotary Drilling Report, October 17, 1986.

F. GEOLOGY

The Aspen 9, 10 and 10A claims are covered with overburden except at the northeast area of the Aspen 9 where the overburden is thin, and black Aldridge argillite has been penetrated by two diamond drill holes.

The project location of the Bull River fault strikes northwesterly cross this



R.H. STANFIELD

Topography & Claims
Drill Collar A9-1-88

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area. A9-1-88 hole was drilled vertical in the southeast area of the Aspen 9 claim. The hole was drilled to a depth of 91.4 metres, using cyclone rotary air-mud equipment but bedrock was not penetrated. Two to four kilometres southeast of the A9-1-88 drill hole the contact between the Precambrian Aldridge and Upper Devonian Palliser formation is exposed. At this location the contact is the northwesterly trending Bull River fault. The Aldridge black argillite and siltstone bedding strikes northwesterly and dips 40 degrees northeasterly.

The Palliser limestone, shale, siltstone, dolomite and gypsum strikes northeast and dips 35 degrees southeast, and is overlain by the Mississippian Exshaw and Banff limestone formations and Rundle Group of fetid dark grey fine-grained limestone, all of which strike northeast and dip 45 to 55 degrees southeast.

Three kilometres west of the Aspen 10 claim a series of granitic outcrops have been exposed.

G. THEORY

The ore deposits of the Sullivan, Estella, Kootenay King and Bull River mines occur within the Aldridge formation, at and near fault zones and granitic intrusives.

For successful development of the full potential of the mineralized zones in the Bull River area it will be necessary to plan and direct the work within the favourable areas of the property, namely those underlain by the Aldridge formation.

H. OBJECT OF THE DRILLING PROGRAM

The object of the drilling program was to determine the depth of overburden, the condition and type of bedrock, the geological formation and mineral content.

TEEPLES
1214 (12)

STEEPLES 12
362 (11)

361' (11')

0-25
CONDITIONS

ASPEN 11
877(7)

ASPEN 13
69(2)

ASPEN 10A
2376(2)

ASPEN 9
787(10)

ASPEN 10
789(10)

ALDER #8

2409(6)

ALL

24
48

R.H. STANFIELD

Rotary Drill Hole

A9-1-88

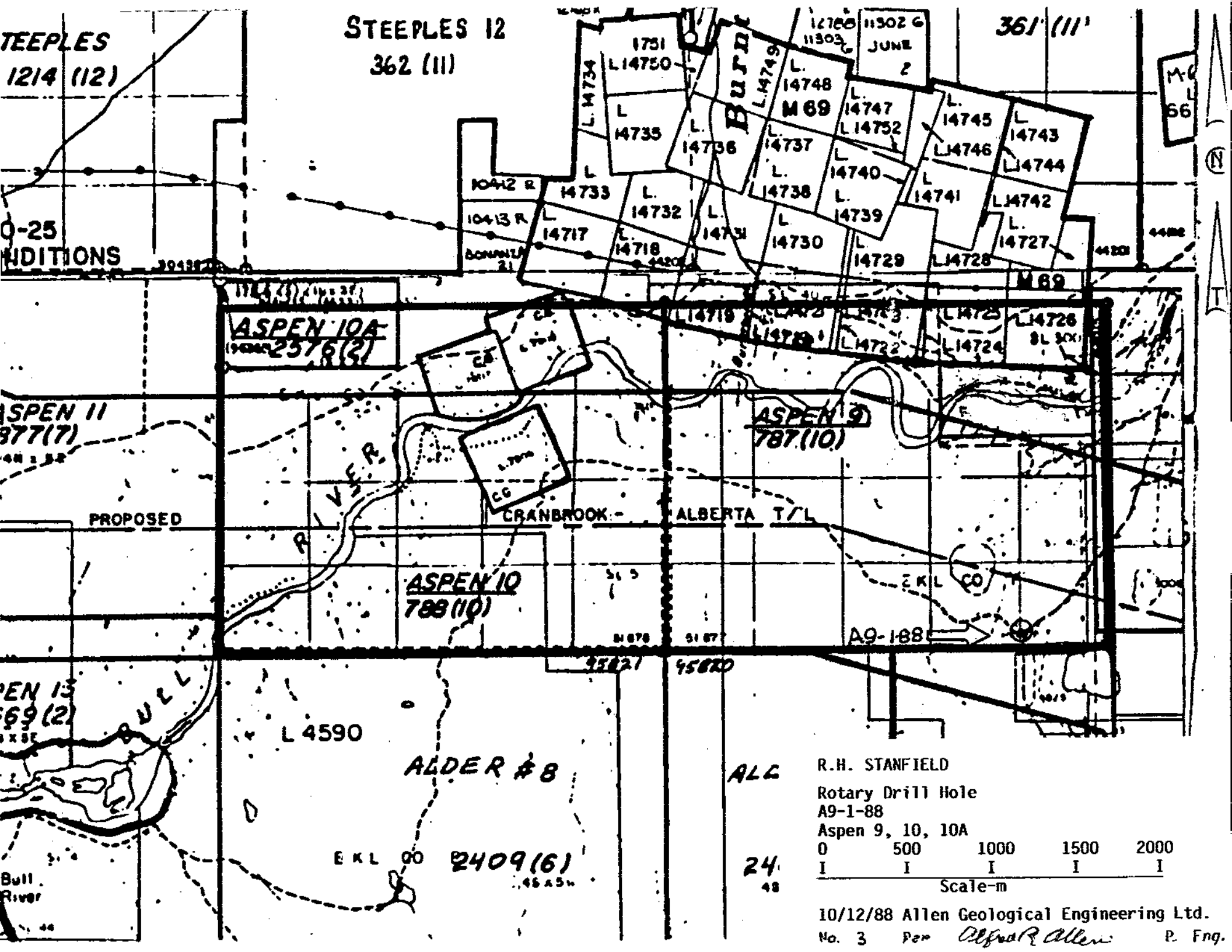
Aspen 9, 10, 10A

0	500	1000	1500	2000
I	I	I	I	I

Scale-m

10/12/88 Allen Geological Engineering Ltd.

No. 3 Per *Alfred R. Allen* P. Eng.



I. CYCLONE ROTARY AIR-MUD DRILLING

Hole A9-1-88 was drilled October 15-17, 1988 to a depth of 91.4m, using Cyclone Rotary Air-Mud equipment.

The crew and equipment contracted by H.R. Stanfield were as follows:

Lewis Wakelam, Driller, Strathmore, Alberta
Randy Miller, Helper, Strathmore, Alberta
Jason Raber, Helper, Strathmore, Alberta

R.H. Stanfield, Manager, Calgary, Alberta
Ross Stanfield, Co-ordinator, Galloway, B.C.

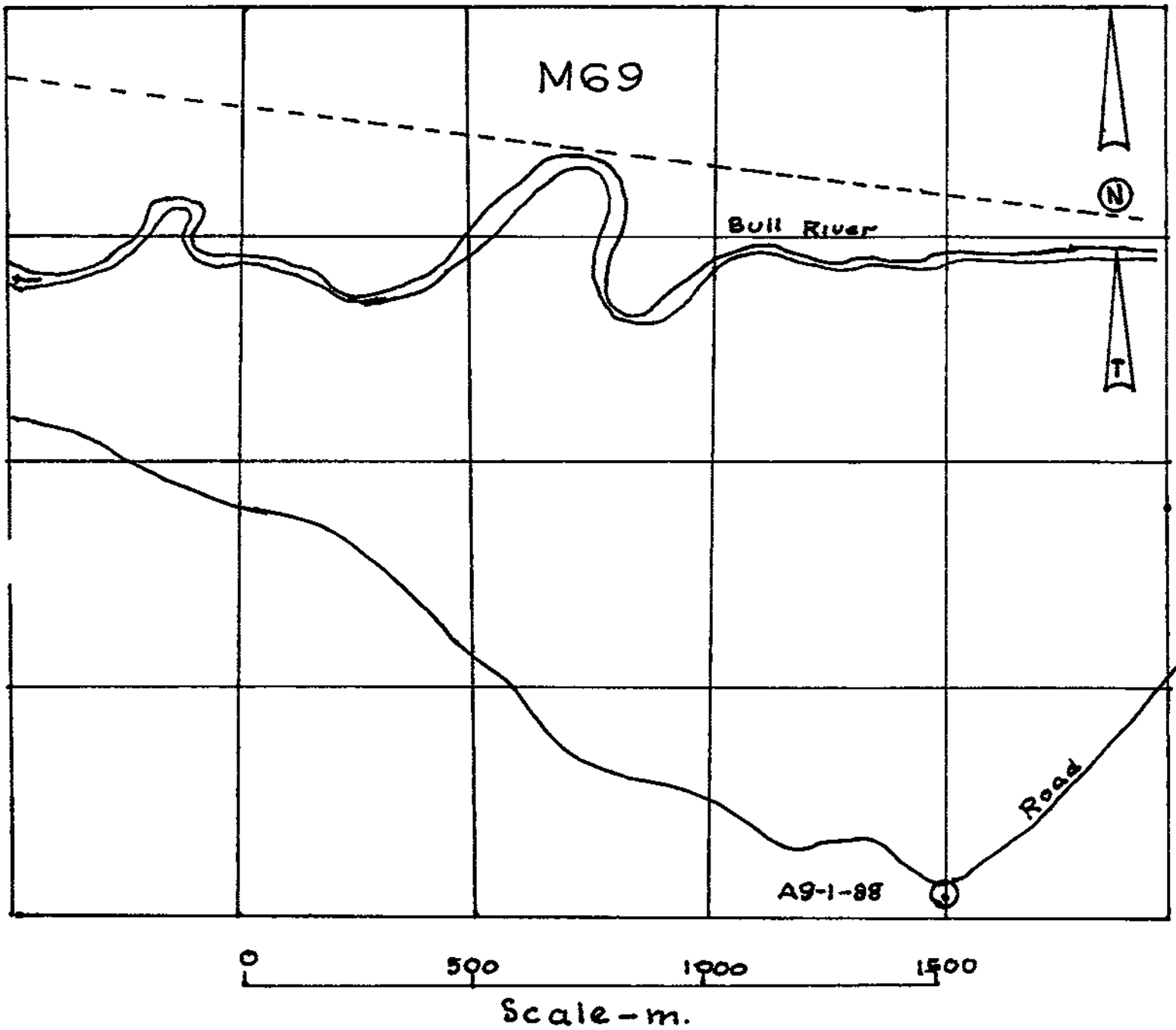
- 1 - Canadian Crane Carrier Truck, with 1 TH-60 Ingersol Rand Cyclone Rotary Drill and accessories, including an extended mast.
- 1 - Mac Super Liner Tandem Water Truck.
- 1 - Ford 750 Casing Truck.
- 1 - Toyota 4x4 Crew Truck.
Stanfield's Ford F250, 3/4 Ton, 4x4 Truck.

J. DRILLING RESULTS

Hole A9-1-88 was drilled vertically for 91.4 metres but did not reach bedrock.

K. DISCUSSION

As mapped by the Geological Survey of Canada, the Bull River fault swings to the northwest where it crosses the Aspen 9 claim. Because of the overburden cover the dip is unknown. If the dip has steepened to vertical, hole A-9-1-88 may have been drilled parallel to it, or the hole may have been directed into a deep depression of the trench floor. Whatever the cause, the location of the Bull River fault and Precambrian - Palaeozoic formations have not been



R.H. STANFIELD HOLDINGS

Aspen 9 Claim
Drill Hole A9-1-88

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accurately determined.

L. SUMMARY

The holes drilled in 1977 near the northeast corner of the Aspen 9 claim encountered black argillite of the Aldridge formation at 7 to 8 metres of depth. This established that these holes are located east of the Bull River fault.

Hole A-9-1-88 was abandoned at a depth of 91.4 metres in overburden.

Respectfully submitted,

ALLEN GEOLOGICAL ENGINEERING LTD.

Per *Alfred R. Allen* P.Eng.
Alfred R. Allen

10/13/88

REFERENCES

- Schofield, S.J. G.S.C. Mem. 76 Cranbrook Map Area, 1915
- Rice, H.M.A. G.S.C. Mem. 228 Nelson Map Area (East), 1941
- Leech, G.B. G.S.C. Paper 58-10 Fernie Map Area, 1958
- Macdonald, B.C. Altamont Exploration Ltd., 1965 & 1966
- Allen, A.R. R.H. Stanfield Holdings, 1967-1988
-
- B.C. Minister of Mines, Annual Reports, Since 1898
-
- International Geological Congress Twenty Fourth Session, Canada, 1972, Field Excursions A03-C03 pp 21-26.

FORT STEELE MINERAL CORPORATION

COST STATEMENT

CYCLONE ROTARY AIR-MUD DRILLING, ASPEN 9 CLAIM

R.H. Stanfield
by Contract

Aspen 9 Claim, 1036 m A.S.L.
Vertical, 91.4 m
October 15-17, 1988

Crews

Drill Crew: Lewis Wakelam, Driller - Strathmore, Alberta
Randy Millar, Helper - Strathmore, Alberta
Jason Raber, Helper - Strathmore, Alberta

Stanfield Crew: R.H. Stanfield, Manager - Calgary, Alberta
Ross Stanfield, Co-ordinator - Galloway, B.C.

Equipment: C.C.C. Truck with TH-60 I.R. Drill & accesories
1 - Mack Tandem Water Truck
1 - Ford 750 Casing Truck
1 - Toyota Crew Truck
Stanfield's Ford 250 3/4 ton 4x4 Truck

Costs:	Drilling	
	91.4m @ \$147/m	\$ 13,435.80
	Supply 4 men, 2 days @ \$65/day	520.00
	Mob& Demob.	1,000.00
	Truck, 3/4 ton 4x4	
	2 days @ \$50/day	100.00
	Manager	
	10 hours @ \$15/hour	150.00
	Co-ordinator	
	20 hours @ \$15/hour	300.00
	Site preparation & clean up	<u>155.00</u>
	Total Drilling Costs	\$ 15,660.80
	A.R. Allen, P.Eng., Consulting	<u>490.00</u>
	TOTAL COSTS	<u>\$ 16,150.80</u>

#514 - 518 Moberley Road
Vancouver, B.C.
V5Z 4G3

CERTIFICATE

December 15, 1988

I, Alfred Allen, certify that:

I am a graduate of the University of British Columbia and hold the following degree therefrom:

BASc Geological Engineering, 1939

MASc Geological Engineering, 1941

I am a life member of the Association of Professional Engineers of the Province of British Columbia.

I have practised my profession for the past forty five years.

I hold no interest in the properties or securities of R.H. Stanfield, nor do I expect to receive any directly or indirectly.

The report on the Aspen 9 drilling programme is based on the site and collar selection, consulting, inspection of cuttings, interpretation and report preparation by the writer, August 4-6, 1987 to December 10, 1988.

Alfred R. Allen, P.Eng.

